

CLAIMS

1. A device (12) for optically regenerating pulses, the device comprising time synchronization means (14) and intensity fluctuation stabilization means (14) for the
5 pulses, and being characterized in that it further comprises noise suppression means (16) that are distinct from the synchronization means (14) and the stabilization means (14).
2. An optical regenerator device (12) according to claim 1, characterized in that the
10 time synchronization means and the intensity fluctuation stabilization means comprise a synchronous intensity modulator (14).
3. An optical regenerator device (12) according to claim 1 or claim 2, characterized in
15 that the noise suppression means comprise a saturable absorber (16) for suppressing amplified spontaneous emission noise.
4. An installation for optically transmitting pulses comprising light signal propagation
20 means (10) and characterized in that it includes an optical regenerator device (12) according to any one of claims 1 to 3, inserted in the propagation means.
5. An optical transmission installation according to claim 4, characterized in that the
propagation means (10) comprise first propagation means (10a) having abnormal
dispersion and second propagation means (10b) having normal dispersion, the time
25 synchronization means (14) and the intensity fluctuation stabilization means (14) being inserted in the vicinity of the junction between the first and second propagation means.
6. An optical transmission installation according to claim 4 or claim 5, characterized in
30 that the noise suppression means (16) are situated upstream from the synchronization means and the stabilization means in the pulse propagation direction.
7. The use of a device according to any one of claims 1 to 3, for regenerating DM
soliton pulses.